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AUTOMATIC REFRIGERATION

WITH ELECTRIC POWER





Automatic Refrigeration

with Electric Power

Exclusively awarded the Grand
Prize for Refrigerating Plant at
Panama Pacific International
Exposition, San Francisco, Cal.,
1915



The Automatic Refrigerating Co.
Hartford, Conn.

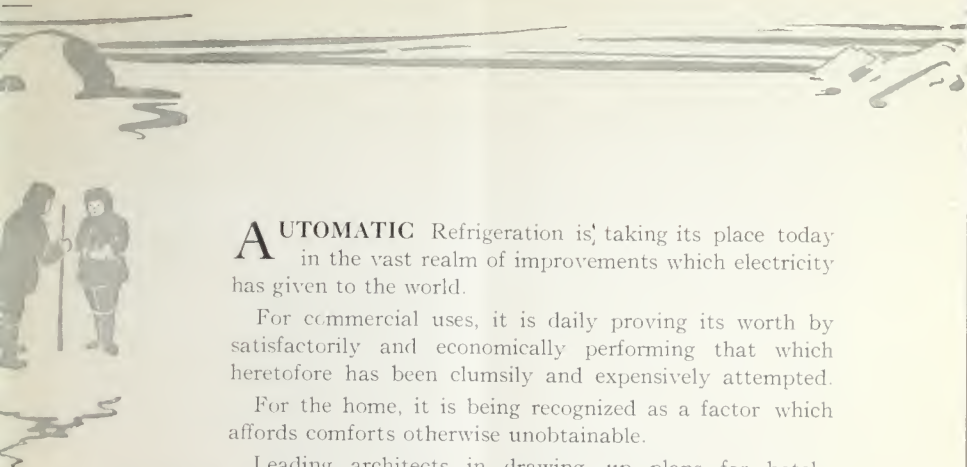


There is always one **best** way to do a thing.

The **AUTOMATIC** Refrigerating System is, without question, the one **best** way of producing artificial refrigeration.

It spells Economy, Service and Satisfaction.

Read this booklet. You will find it instructive and interesting.



AUTOMATIC Refrigeration is taking its place today in the vast realm of improvements which electricity has given to the world.

For commercial uses, it is daily proving its worth by satisfactorily and economically performing that which heretofore has been clumsily and expensively attempted.

For the home, it is being recognized as a factor which affords comforts otherwise unobtainable.

Leading architects in drawing up plans for hotels, apartment houses, office buildings, institutions of all kinds, summer homes and large city residences, invariably provide for a refrigerating plant. Many of them (and the number is increasing steadily) recommend the **AUTOMATIC** Refrigerating System — for they easily comprehend the advantages which this system affords — its strength and durability, its simplicity and economy in operation, and the general satisfaction to be obtained from its use.

Consulting Engineers, in providing for the ideal refrigerating system, which, of course, means the most economical and efficient, are attracted to the **AUTOMATIC** system because of the small amount of attention necessary for its operation compared with what has heretofore been the case.

AUTOMATIC Refrigeration offers you the greatest possible service at the least possible cost. This is, of course, what you want and we can provide you with just this — and beyond it the assurance that you will find the **AUTOMATIC** Refrigerating System all and more than we claim for it.

Tell us what your needs are and we will tell you fairly and squarely exactly what you should have.

Remember our engineering staff is composed of electrical and refrigerating experts, who have been especially trained in this class of refrigeration problems. You would not think of assuming the responsibility of some legal difficulty, but would submit it immediately to your lawyer, an expert on such matters.

Our engineers are just as expert on refrigerating matters as a good lawyer is on legal points. Submit your refrigeration problems to us. We will solve them for you gladly and to your entire satisfaction. This service will entail no obligation on your part.



Sizes of Motors required for different refrigerating capacities of refrigeration for 24 hours
Motors 85% Load

Horsepower of Motor	1/4	1	2	3	5	7 1/2	10	15	20	25	30	50
Capacity in Tons	400	1000	2000	3000	5000	7000	10000	15000	20000	25000	30000	50000

Installation of additional units to take care of larger requirements is in line with the latest practices of progressive engineering.



The Automatic System

THE AUTOMATIC is not complicated, but simple, in its parts and operation. It is the culmination of years of experimenting by the most progressive and able refrigerating and electrical engineers and is the result of what our experience has demonstrated is the best and most practical method of securing refrigeration at the lowest possible cost for the greatest service.

Hundreds of satisfied customers throughout the United States and Canada will attest to its advantages and reliability.

Mechanically it is more nearly perfect than any other make. As soon as we discover wherein it can be bettered, we will do so. Our policy is to build the very best plant that can be built and then try to build a better one. You are, therefore, always sure of the mechanical strength, accuracy and completeness of AUTOMATIC Refrigerating Plants.

All parts of our plants are of superior construction and are interchangeable. We always carry a stock of parts on hand which can be shipped promptly — no delays or holding up of your apparatus while a new part is being constructed.

Advantages of the Automatic System

Small and large refrigerating plants were at a disadvantage before the development of the AUTOMATIC, as constant personal attention made the cost of operation considerable. The AUTOMATIC in a large measure eliminates this feature, reducing the required attention to a minimum.

An AUTOMATIC Refrigerating Plant, properly installed, works during time when electricity can be sold by electric power companies at the lowest rate. In other words, the machine is operated when the "peak," as it is termed, is off, effecting a substantial saving in the cost of electricity.

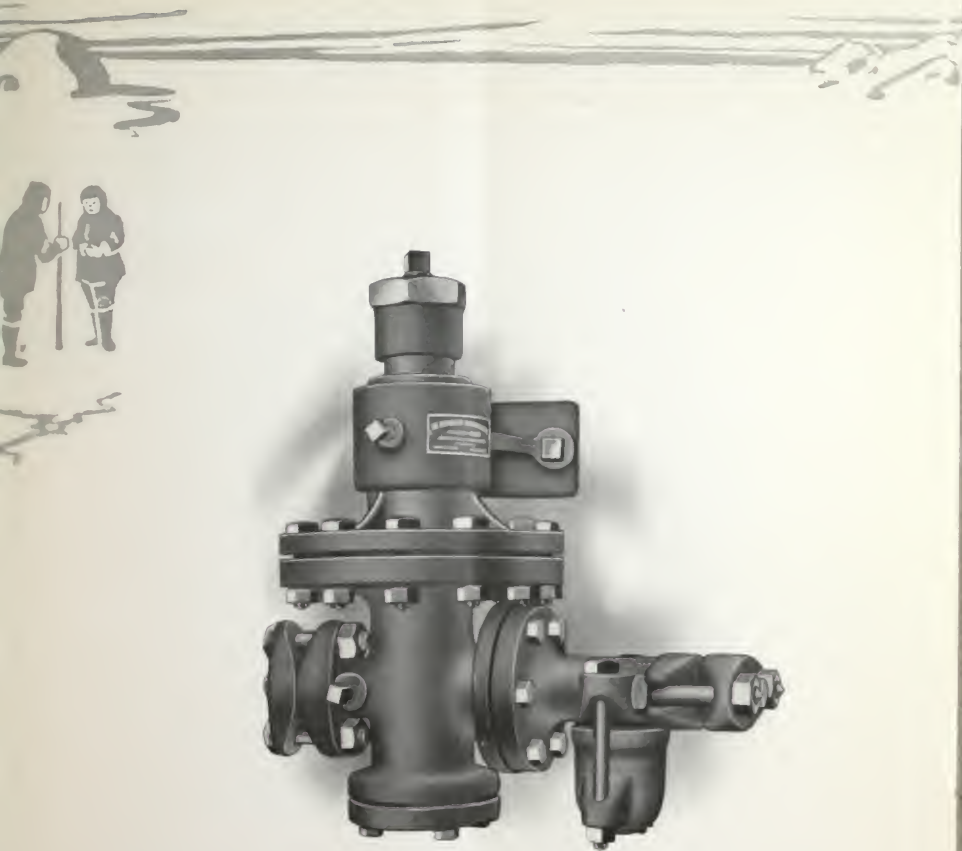
Generally, Electric Power Companies are willing to give much better rates when the AUTOMATIC is used, and this is becoming most universal, as it is in direct line with the best practice in Central Station management and helps build up the load curve at the times when the "valleys" are deepest.



Thermostatic Control of the Starting and Stopping of the Electric Motor

THE Thermostat automatically controls the starting and stopping of the machine so as to maintain any desired temperature, within a degree or two of a predetermined point. Thus, if the predetermined temperature is to be 35° Fahr., the temperature in the room will not vary but a degree or two above or below that point, owing to the **AUTOMATIC** starting of the machine when the temperature runs up to 36° or 37° Fahr., and to its stoppage when the temperature is lowered again to 34° or 33° Fahr. The thermostat can be adjusted to maintain any temperature — even down below 0° Fahr.

This means that power is being consumed **ONLY** when temperature requires it.



Automatic Expansion Valve

THE **AUTOMATIC** Expansion Valve does automatically what it would be impossible for a man to do as well by hand adjustment.

The most economical pressure at which liquid ammonia should expand for a given temperature requirement is automatically maintained by this valve, which is of a rugged but comparatively simple construction.

This means a considerable saving in the expense for power.



Automatic Water Regulator

AUTOMATICALLY controls the flow of condensing water to meet the demands of the system, so as to maintain the most economical pressure considering the comparative cost of electricity and water.

By means of this valve, the pressure can be **AUTOMATICALLY** carried at a lower point by using more water where the cost of electricity is comparatively high.

On the other hand, where water is expensive, a proper balance can be reached to give the most economical results.

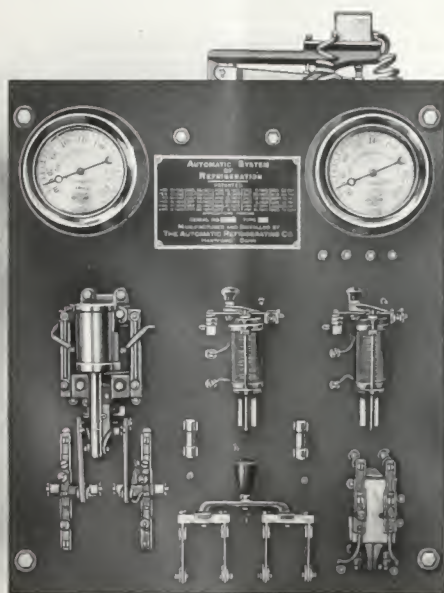
This absolutely cannot be accomplished by hand regulation.

The water valve shuts down when the condensing pressure arrives at a predetermined point, shortly after the machine stops and opens only when that pressure rises.

This means a considerable saving in the water consumption.

Water waste means money loss.





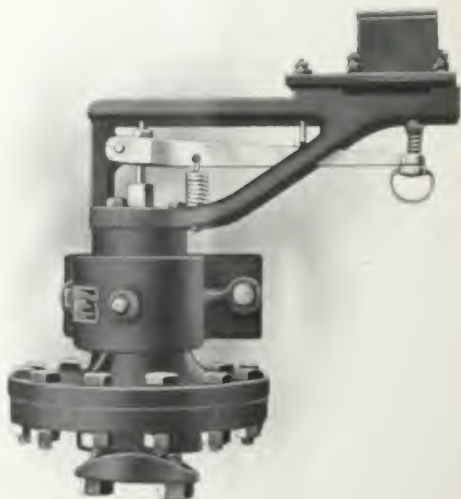
Automatic Motor Protector

IT is a well-known fact in electrical engineering circles that though proper size fuses may be installed in the beginning, almost invariably when it is necessary to install new ones, the sizes are increased so that they do not properly protect the motor.

The **AUTOMATIC** Motor Protector is used in place of these unreliable fuses, absolutely protecting the motor at all times.

This is a decided step in advance in electrically driven refrigerating apparatus. It is unique and used **only** on **AUTOMATIC** refrigerating plants.

This means safety from electrical disturbances.



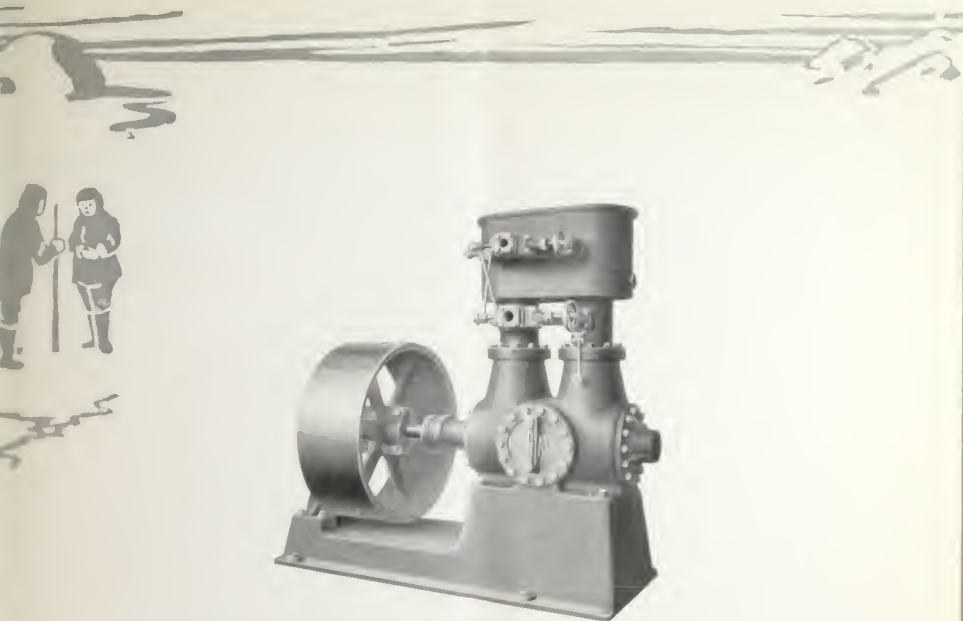
The High Pressure Safety Cut-off

SOMETIMES it happens that there is a failure of the supply of water entering the condenser. For instance, in case of fire in the vicinity of the plant, the fire engines for the time being may take all the supply from the mains. Again, the supply is sometimes shut off to repair the pipes or to make new connections.

If a machine continues to run under such conditions, an unduly high pressure will develop. Through the operation of the high pressure safety cut-off the increasing pressure of the compressed gas tending to become excessive, cuts off the electric current supplied to the motor, thus stopping the plant, and rings an alarm bell. Then, when the pressure returns to normal, it again starts up the machine.

This means safety.





The Ammonia Compressor

MANY refrigerating plants suffer in efficiency after a time by the lubricating oil passing into the system beyond the compressor so as to choke the valves and to prevent the coils from properly taking up the heat. Such losses are prevented in the **AUTOMATIC** by the special and peculiar construction of the compressor.

The Ammonia Compressor is of a perfected type, designed to eliminate the objectionable oil pumping. Single-acting, two-cylinder, materials of the best that money can purchase, workmanship of the highest class.

It is equipped with safety heads, balanced suction valves, and adjustable discharge valves to eliminate the objectionable noises of the ordinary valves.

The returning cold gas is **not** taken into the compressor either at the hottest part of the machine or into the base where the lubricating oil would be forced over into the system.

This makes the most efficient type of compressor and, of course, saves you money.



Factory Drinking Water
Installation,
Colt's Patent Fire Arms
Mfg. Co.,
Hartford, Conn.



Palati Royal Department
Store,
Washington, D. C.



We are often asked the cost of **AUTOMATIC** Refrigeration compared with ice refrigeration.

AUTOMATIC Refrigeration is much the cheaper in money cost — but this is but the smaller part of its manifold advantages, as is strikingly evidenced by its rapidly increasing use in cold northern districts where ice is cheapest.

As several of our customers have expressed it:

They could not afford to return to ice refrigeration even if it were given them without cost.



Georgian Terrace Hotel,
Atlanta, Ga.
Mr. W. L. Shubert,
Architect,
New York, N. Y.



Union National Bank,
Houston, Texas.
Messrs. Moore, Brown, Smith
& Oswald, Architects.
Henry H. Henshaw,
Consulting Engineer.



Plaza de Louis Apartments,
Atlanta, Ga.
Mr. W. L. Shubert,
Architect,
New York, N. Y.



Dairy Building,
Jas. Deering Estate,
Miami, Fla.
Messrs. F. B. Hoffman, Jr.
Paul Chalfin,
Architects.



Kemper
Grocery
Co.,
Atlanta,
Georgia.



Worcester Market,
Worcester, Mass.,
of the Providence
Public Market Co.,
Providence, R. I.
Mr. O. C. S. Zirolli,
Architect.



Users of Automatic Refrigeration

United States Government
Individual States for
Hospitals and Asylums
Bacteriological Laboratories
Reformatories

Municipalities for
Public Markets
Board of Health Laboratories
Morgues

Colleges
Seminaries
Boarding Schools
Sanatoria
Large Meat Packers for Branch
Houses
Brewers for Beer Depots
Hotels
Office Buildings
Large Residences
Country Estates
Apartment Houses
Factories

Restaurants and Cafes
Butchers
Grocers
Meat Markets
Produce Dealers
Florists
Druggists
Furriers
Dairies
Bakery
Confectioners
Ice Cream Parlors
Fruit Dealers

In fact, refrigeration and ice making are used in numberless ways and for a large variety of purposes, and their uses are increasing daily.

Perhaps you need a refrigerating plant in your business. If so, call upon us; we will gladly give you all the necessary information and quote you upon your proposition.

We figure the cost of installation upon each individual proposition. This is the most satisfactory way, as you get the benefit of our sales engineer's services and he can give you accurate information as to equipping your plant so as to make an ideal installation for your individual needs.



Data Sheet

	Room I	Room II	Room III	Room IV
Length of room				
Width of room				
Height of room				
Used for				
Lbs. cooled daily				
From Temp. of				
Outside Temp.				
Desired Temp.				
Thickness of walls				
Wall construction				
Is door often opened?				
Is any part exposed to direct rays of sun?				

Voltage _____ D. C. or A. C. _____

Phase _____ Frequency _____

Source of Water Supply _____

Summer Temp. of Same _____

Max. Amt. of Ice now used _____

Special Data _____

Signed _____

Address _____

Return to THE AUTOMATIC REFRIGERATING COMPANY,
HARTFORD, CONN.

